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<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> <i>(Only for new nonprovisional applications under 37 C.F.R. § 1.53(b))</i>	Attorney Docket No.	23334.01
	First Inventor or Application Identifier	Gerard P. SULLIVAN
	Title	Apparatus and Method for Creating and Managing
	Express Mail Label No.	EL 007 663 185 US

<b>APPLICATION ELEMENTS</b> <i>See MPEP chapter 600 concerning utility patent application contents.</i>	<b>ADDRESS TO:</b> Assistant Commissioner for Patents Box Patent Application Washington, DC 20231
1. <input checked="" type="checkbox"/> * Fee Transmittal Form (e.g., PTO/SB/17) <i>(Submit an original and a duplicate for fee processing)</i> 2. <input checked="" type="checkbox"/> Specification [Total Pages 16] <i>(preferred arrangement set forth below)</i> - Descriptive title of the Invention - Cross References to Related Applications - Statement Regarding Fed sponsored R & D - Reference to Microfiche Appendix - Background of the Invention - Brief Summary of the Invention - Brief Description of the Drawings (if filed) - Detailed Description - Claim(s) - Abstract of the Disclosure 3. <input checked="" type="checkbox"/> Drawing(s) (35 U.S.C. 113) [Total Sheets 12] 4. Oath or Declaration [Total Pages 2] a. <input checked="" type="checkbox"/> Newly executed (original or copy) b. <input type="checkbox"/> Copy from a prior application (37 C.F.R. § 1.63(d)) <i>(for continuation/divisional with Box 16 completed)</i> i. <input type="checkbox"/> <u>DELETION OF INVENTOR(S)</u> Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. §§ 1.63(d)(2) and 1.33(b).	5. <input type="checkbox"/> Microfiche Computer Program (Appendix) 6. Nucleotide and/or Amino Acid Sequence Submission <i>(if applicable, all necessary)</i> a. <input type="checkbox"/> Computer Readable Copy b. <input type="checkbox"/> Paper Copy (identical to computer copy) c. <input type="checkbox"/> Statement verifying identity of above copies
<b>ACCOMPANYING APPLICATION PARTS</b> 7. <input type="checkbox"/> Assignment Papers (cover sheet & document(s)) 8. <input type="checkbox"/> 37 C.F.R. § 3.73(b) Statement <input type="checkbox"/> Power of Attorney <i>(when there is an assignee)</i> 9. <input type="checkbox"/> English Translation Document (if applicable) 10. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations 11. <input type="checkbox"/> Preliminary Amendment 12. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) <i>(Should be specifically itemized)</i> 13. <input checked="" type="checkbox"/> * Small Entity Statement(s) <input checked="" type="checkbox"/> Statement filed in prior application, Status still proper and desired <i>(PTO/SB/09-12)</i> 14. <input type="checkbox"/> Certified Copy of Priority Document(s) <i>(if foreign priority is claimed)</i> 15. <input type="checkbox"/> Other:	
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**STATEMENT CLAIMING SMALL ENTITY STATUS**  
**(37 CFR 1.8(f) & 1.27(c))--SMALL BUSINESS CONCERN**

Docket Number (Optional)  
23334.00

Applicant, Patentee, or Identifier: Gerald P. Sullivan

Application or Patent No.: to be assigned

Filed or Issued: February 11, 2000

Title: Apparatus and Method for Creating and Managing a Financial Instrument

I hereby state that I am

- ☐ the owner of the small business concern identified below;  
☒ an official of the small business concern empowered to act on behalf of the concern identified below.

NAME OF SMALL BUSINESS CONCERN Claremont Investment Partners, LLC.

ADDRESS OF SMALL BUSINESS CONCERN 104 Summit Avenue, P.O. Box 80, Summit, NJ 07902

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I hereby state that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention described in:

- ☒ the specification filed herewith with title as listed above.  
☐ the application identified above.  
☐ the patent identified above.

If the rights held by the above identified small business concern are not exclusive, each individual, concern, or organization having rights in the invention must file separate statements as to their status as small entities, and no rights to the invention are held by any person, other than the inventor, who would not qualify as an independent inventor under 37 CFR 1.9(c) if that person made the invention, or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d), or a nonprofit organization under 37 CFR 1.9(e).

- Each person, concern, or organization having any rights in the invention is listed below:  
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☐ each such person, concern, or organization is listed below.

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NAME OF PERSON SIGNING Gerald P. Sullivan

TITLE OF PERSON IF OTHER THAN OWNER President and CIO

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SIGNATURE  DATE 2/11/00

**APPARATUS AND METHOD FOR CREATING AND MANAGING A  
FINANCIAL INSTRUMENT**

**Reference to Related Applications**

This application is related to U.S. Provisional Application Serial No. 60/181,718, filed February 11, 2000 in the name of Gerard P. Sullivan, entitled "APPARATUS AND METHOD FOR CREATING AND MANAGING A FINANCIAL INSTRUMENT", and incorporated herein by reference.

**BACKGROUND OF THE INVENTION**

Equity mutual funds of all shapes and sizes tend to have one thing in common. Greater than 95% of equity mutual funds are managed by an individual Portfolio Manager or Investment Committee and would be considered "actively" managed. The remaining majority of funds would be considered "passively" managed index funds. An index fund uses the same representative portfolio as the published index it seeks to replicate. The majority of equity indexes that are published are weighted by market capitalization (the market price of a stock times shares outstanding). Market capitalization weighted indexes differ only by their universe selection. By gate-keeping an index universe, committees responsible for an index exclude certain component equities from their sample to maintain a predetermined portfolio characteristic of price/earnings ratio and price to book ratio. Our invention, The Industry Leaders Strategy Model was developed to generate portfolios based on the same universe, but using different ingredients to determine the weightings. Our process creates portfolios that have different portfolio statistics that are determined by the weighting factor and not a predetermined outcome. We developed a unique methodology for weighting portfolios by different fundamental inputs.

There are a small number of proprietary "model" based mutual funds that because of their secretive nature are as variegated as the actively managed funds. This invention has the same goal as these proprietary models (to be differentiated from actively managed funds by association to a discipline), yet this invention attempts to use a rigid and unique methodology to achieve the creation of understandably allocated portfolios.

## Summary of the Invention

It is an object of this invention to provide a method for the creation of portfolios of equity securities that does not require active management.

It is an object of this invention to provide a method of investment allocation based upon the data elements of the securities included within the investment portfolio.

In accordance with these and other objects of this invention, there is disclosed a method of allocating a portfolio investment among a population of securities held in an investment portfolio, wherein each security of the population of securities is issued by a company of a plurality of companies, and each security has at least one corresponding data element. The method includes the steps of assigning each security to a corresponding industry group, summing one of the corresponding data elements of each of the securities assigned to said corresponding industry group to provide an industry total for the corresponding industry group, and summing the industry total for each of the plurality of industry groups to provide the portfolio investment. Finally, a one investment portion of the portfolio investment is distributed to at least one or more of the plurality of industry groups.

In a further aspect of this invention, at least some of the population of securities is updated on a periodic cycle. Further, the plurality of securities are subdivided into a plurality of editions, wherein each edition is updated on a cycle that is staggered from the cycles of the other editions.

In a still further feature of this invention, the investment portion of the corresponding industry group is equal to a proportion of the industry total of the corresponding industry group to the portfolio investment. Further, the investment portion is distributed among a selected one or more of the securities of the corresponding industry group. In one embodiment of this invention, the investment portion is distributed to at least that security of the corresponding industry group that has the largest data element of the securities assigned to the corresponding industry group. In a further embodiment, two or more parts of the investment portion are allocated to two or more of the securities of the corresponding industry group that have the largest data elements.

1 In a still further aspect of the invention, the part of the investment portion allocated to  
2 a single security is set to not exceed a predetermined amount.

### 3 **Brief Description of the Drawings**

4 Figure 1 illustrates how the universe of equities is determined for all applications of  
5 this invention. There are common exclusions to the chosen universes that are predetermined.  
6 Figure 1 builds a frame broken down by industry that includes all companies to be  
7 aggregated by the invention.

8 Figure 2 illustrates how different data elements are used to create a universe  
9 aggregation that generates the portfolio allocation for a given industry. As different data  
10 elements are intruded into the process, different investment allocations by industry are  
11 created.

12 Figures 3-8 illustrate how an industry is represented by a unique set of leaders. This  
13 process has 6 steps of iteration available per industry. A fixed monthly allocation is created  
14 for each company that represents its industry.

15 Figure 9 illustrates the model mechanics in an algebraic expression.

16 Figure 10 illustrates an example of this invention's portfolio for the data element of  
17 common shareholders equity.

### 18 **Detailed Description of the Invention.**

19 The following example describes an illustrative embodiment of this invention with  
20 common shareholders equity as a selected data element input. Each application of the  
21 invention (using different data element inputs) creates a different investment strategy.

22 This illustrative embodiment produces a principal investment strategy that invests in a  
23 broad number of industries and companies with the highest common stockholders' equity in  
24 their respective industries and produces a portfolio of approximately 95 to 110 companies  
25 that can be systematically managed to replicate the specified investment allocations.

26 Referring now to Figure 1, there is shown data that is brought into the data processing  
27 system of this invention. Utilizing a public, published universe of equities, we sort the

equities into their primary industries and prepare the system to incorporate data. Imported data can be incorporated from any known source including, among others, Standard & Poors Compustat®, The Value Line Investment Survey® and Bloomberg®. For this illustrative embodiment of the data processing system, we have chosen to illustrate our data processing system using the Value Line Investment Survey® (“Value Line”) found in step 2. Value line lists approximately the 1,700 of the largest publicly traded companies and classifies each company into an industry category, and is a good source to provide the contents of industries and representative companies for the previous 14 years. This established a fluid universe of equities to which we apply the data processing system. Step 4 sorts the industries and companies within each industry and formats them in a way that allows the data processing system to allow the universe to be refined.

To differentiate portfolios into international or domestic the invention using step 6 may exclude any population of equities or industries that an investment manager may choose in order to create a desired portfolio. Step 8 embodies an example of exclusions that are used for this illustration. The invention excludes from this illustrative example companies that are in the following foreign industries: Canadian Banks, Canadian Energy, Foreign Electronics/Entertainment and Foreign Telecommunications. Value Line publishes some data on investment companies which are excluded (closed-end domestic, foreign models, and income funds). We exclude from the universe companies whose shares are not directly traded in the United States (*e.g.*, American Depository Receipts, commonly referred to as “ADRs”). Finally, the present system excludes from the universe companies included in Value Line as “miscellaneous” but which have not yet been assigned an Industry category because the invention does not assign industry categorization. The portfolio created from steps 6 and 8 will include domestic multinational corporations, but a smaller number of foreign companies, which do not have the same data reporting requirements as domestic corporations.

Step 10 uses the universe “update cycle” to determine how often changes are made to a given industry. An update cycle is the frequency to which the universe is modified by the publisher. Value Line changes their industry compositions every 3 months (1 quarter) and the cycle is set to 1 quarter. Standard and Poors and Bloomberg have different update cycles so step 10 would be different for these universes. In establishing this example universe of

1 stocks, the invention also adjusts the Industry category of "Banks" to include "Banks  
2 Midwest" so as to unify the banking Industry analysis. Step 12 sorts the companies into the  
3 editions (weekly updates, numbering 13) found in Value Line which allows for an organized  
4 presentation of data from this data processing system. Step 14 highlights the update cycle  
5 found in the universe and this illustrative example describes the weekly update found in  
6 Value Line's quarterly update cycle. Industries and companies are included in this invention  
7 only for the periods during which they are published in the chosen universe by step 12.

8 Figure 2 illustrates how a chosen data element is incorporated into the refined  
9 universe found in step 12. The invention has the ability to use any published data element for  
10 a public corporation. A data element is an input to which the data processing system is  
11 applied. Step 22 illustrates potential data elements such as market capitalization and net  
12 income, but is not a complete list of potential data inputs. Each data element that is applied to  
13 the invention produces a different investment style and therefore a different portfolio.  
14 Publicly available data is acquired, for example, electronically from the EDGAR database of  
15 the SEC for fundamental data elements like common shareholders equity, net income, net  
16 revenue, net earnings and total assets. A market data source such as Bloomberg is used to  
17 provide market capitalization data. The illustrative embodiment presented here uses common  
18 shareholders equity to produce a "Large Capitalized Value Styled Portfolio." Step 24  
19 acquires the chosen data element and imports the data into this data processing system.

20 Step 26 totals the data elements for all companies included in an industry for each  
21 month and step 28 totals the data elements for the selected universe. Finally, step 30 allocates  
22 an industry investment, which is calculated from the industry total divided by the universe  
23 total as determined in step 28. This investment allocation is created on a systematic basis,  
24 e.g., monthly, and is denoted by variable  $1_n$ .

25 There are many ways to assign an investment allocation to an individual equity and  
26 create a unique portfolio. With the industry previously defined and a data element chosen,  
27 the individual investment allocation process can use one of 2 allocation options. An  
28 investment manager may choose to maintain a portfolio with a manageable number of  
29 equities (less than 200), or he can choose to have all industry members represented by their  
30 prominence with regard to the total industry amount (individual percent of data element with

regard to the specific industry). The first method is illustrated in figures 3 through 8 and the second method is illustrated in figure 11.

The size of the industry's investment allocation determines how many representatives are used. Therefore to create a portfolio, the data processing system applies a redundant iteration for each included industry of the defined universe. In choosing this allocation method, the investment manager would determine the maximum limit for the portfolio. Figure 3 through 8 illustrate the individual allocation limit using a value of 2.25. The example of 2.25% would limit an individual equity's portfolio representation to 2.25% of the total portfolio. By definition, the company with the largest data element for the given month would receive all of the industry's allocation determined by step 30.

As shown in figure 3, the process looks to determine the size of the industry in step 40. When the industry's amount is below the 2.25% value, the process continues to step 44. If the industry is larger than 2.25% then the process would skip to step 60. To determine the way a statistical tie would be broken, the data processing system allows for a significance test between the company with the largest data element and the next largest company. Step 44 illustrates a 2% value to determine if a statistical tie would be present and if so step 48 would split the allocation between the first 2 representatives of the industry. Step 46 would be used if no defined statistical tie is present, and the largest representative would be allocated the entire amount of the industry allocation. Step 50 takes the next industry back to step 40.

Figure 4, step 60 would capture industries greater than or equal to 2.25% and less than 4.5%. If the industry is greater than 4.5% the test in step 60 would send the process to step 80, as more fully shown in figure 5. Step 64 tests the significance of the leader by the previously defined 2.0%, and if there is no tie the data processing system goes to step 66 and the leader is assigned 2.25% and the next closest company is assigned  $(I_n - 2.25\%)$ . Step 68 would split the total amount of the industry between the two largest companies in the industry if the 2% significance test is failed and a tie is determined. Step 70 takes the next industry back to step 40.



Figure 5, step 80 captures industries greater than or equal to 4.5% and less than 6.75% of the total portfolio allocation. If the industry is greater than 6.75%, step 80 would send the process to step 82 and be forwarded to step 120. Step 84 tests the significance of the leader ( $F_1$ ) by the previously defined 2.0%. If there is no tie and the 2% significance test is passed, the data processing system goes to step 86 and the leader ( $F_1$ ) is assigned 2.25% and forwarded to step 88 for the 2% significance test between the second ( $F_2$ ) and third ( $F_3$ ) largest companies. Step 90 has the second company ( $F_2$ ) clearing the 2% significance test and gaining the 2.25% limit. Step 92 tests for the 2% significance test between the third ( $F_3$ ) and fourth ( $F_4$ ) largest companies. Step 94 captures a 2% significance test tie and would split the remaining amount of the industry ( $I_n - 4.5\%$ ) between ( $F_3$ ) and ( $F_4$ ) and forwarded to step 108 and forwarded back to step 40. Step 96 assigns 2.25% to ( $F_3$ ) if the significance test in step 92 is passed and  $F_3$  gained the remaining amount of the industry ( $I_n - 4.5\%$ ). Step 98 captures a tie of the step 84 significance test, and assigns  $F_1$  and  $F_2$  2.25%. Step 100 is a significance test with step 102 having the third leader  $F_3$  capturing the remaining balance of the industry ( $I_n - 4.5\%$ ). From step 102 the data processing system forwards to step 108 and to be sent back to step 40. Step 104 represents a tie between  $F_3$  and  $F_4$  and allocates a split of the remaining balance of the industry ( $I_n - 4.5\%$ ) and forwarded to step 108.

Figure 6, step 120 captures industries greater than or equal to 6.75% and less than 9.0% of the total portfolio allocation. If the industry is greater than 9.0%, step 120 would send the process to step 122 and be forwarded to step 160. Step 124 tests the significance of the leader ( $F_1$ ) by the previously defined 2.0%. If there is no tie and the 2% significance test is passed, the data processing system goes to step 126 and the leader ( $F_1$ ) is assigned 2.25% and forwarded to step 128 for the 2% significance test between the second ( $F_2$ ) and third ( $F_3$ ) largest companies. Step 130 has the second company ( $F_2$ ) clearing the 2% significance test and gaining the 2.25% limit and forwarded to step 132 and on to step 138. Step 134 assigns the tie between  $F_2$  and  $F_3$  2.25%, and forwarded to step 142. Step 136 captures the tie between  $F_1$  and  $F_2$  and assigns a value of 2.25%, and forwards to step 138. Step 138 tests for the 2% significance test between the third ( $F_3$ ) and fourth ( $F_4$ ) largest companies. Step 148 captures a 2% significance test tie and would split the remaining amount of the industry ( $I_n - 4.5\%$ ) between ( $F_3$ ) and ( $F_4$ ) and forwarded to step 150 and forwarded back to step 40. Step

1 140 assigns 2.25% to ( $F_3$ ) if the significance test in step 138 is passed. Step 142 is a  
2 significance test with step 144 having the fourth leader  $F_4$  being assigned the remaining  
3 balance of the industry ( $I_n - 6.75\%$ ). From step 144 the data processing system forwards to  
4 step 150 to be sent back to step 40. Step 146 represents a tie between  $F_4$  and  $F_5$  and allocates  
5 a split of the remaining balance of the industry ( $I_n - 6.75\%$ ) and forwarded to step 150.

6 Figure 7, step 160 captures industries greater than or equal to 9.0% and less than  
7 11.25% of the total portfolio allocation. If the industry is greater than 11.25% ,step 160  
8 would send the process to step 162 and be forwarded to step 200. Step 164 tests the  
9 significance of the leader ( $F_1$ ) by the previously defined 2.0%. If there is no tie and the 2%  
10 significance test is passed, the data processing system goes to step 166 and the leader ( $F_1$ ) is  
11 assigned 2.25% and forwarded to step 168 for the 2% significance test between the second  
12 ( $F_2$ ) and third ( $F_3$ ) largest companies. Step 170 has the second company ( $F_2$ ) clearing the 2%  
13 significance test and gaining the 2.25% limit and forwarded to step 172 and on to step 178.  
14 Step 174 assigns the tie between  $F_2$  and  $F_3$  2.25%, and forwarded to step 142. Step 136  
15 captures the tie between  $F_1$  and  $F_2$  and assigns a value of 2.25%, and forwards to step 182.  
16 Step 178 tests for the 2% significance test between the third ( $F_3$ ) and fourth ( $F_4$ ) largest  
17 companies. Step 192 captures a 2% significance test tie and would assign 2.25% to both ( $F_3$ )  
18 and ( $F_4$ ) and forwarded to step 194. Step 180 assigns 2.25% to ( $F_3$  if the significance test in  
19 step 178 is passed. Step 182 is a significance test with step 184 having the fourth leader  $F_4$   
20 being assigned 2.25%. From step 184 the data processing system forwards to step 186 to  
21 apply the significance test to  $F_5$  and  $F_6$ . Step 190 represents a tie between  $F_5$  and  $F_6$ , and  
22 allocates a split of the remaining balance of the industry ( $I_n - 9.0\%$ ) and forwarded to step  
23 198. Step 188 captures a clearance of the significance test and assigns  $F_5$  the balance of the  
24 industry allocation ( $I_n - 9.0\%$ ). Step 198 takes the process back to step 40.

25 Figure 8, step 200 captures industries greater than or equal to 11.25% and less than  
26 13.00% of the total portfolio allocation. If the industry is greater than 13.00%, step 202  
27 would assign a limit on 13% to the industry and be returned back to step 200 with  $I_n =$   
28 13.00% (this size limit is included in this illustrative embodiment, but may be removed for  
29 other applications), Step 204 tests the significance of the leader ( $F_1$ ) by the previously  
30 defined 2.0%. If there is no tie and the 2% significance test is passed, the data processing

system goes to step 206 and the leader ( $F_1$ ) is assigned 2.25% and forwarded to step 208 for the 2% significance test between the second ( $F_2$ ) and third ( $F_3$ ) largest companies. Step 210 has the second company ( $F_2$ ) clearing the 2% significance test and gaining the 2.25% limit and forwarded to step 212 and on to step 218. Step 214 assigns the tie between  $F_2$  and  $F_3$  2.25%, and forwarded to step 226. Step 216 captures the tie between  $F_1$  and  $F_2$  and assigns a value of 2.25% to each company, and forwards to step 218. Step 218 tests for the 2% significance test between the third ( $F_3$ ) and fourth ( $F_4$ ) largest companies. Step 222 captures a 2% significance test tie and would assign 2.25% to both ( $F_3$ ) and ( $F_4$ ) and forwarded to step 224 and be forwarded to step 234. Step 220 assigns 2.25% to ( $F_3$ ) if the significance test in step 218 is passed. Step 226 is a significance test between  $F_4$  and  $F_5$  with step 232 having the fourth leader  $F_4$  clearing the significance test and being assigned 2.25%. Step 228 assigns  $F_4$  and  $F_5$  2.25% and is forwarded to step 230 and on to step 238. Step 234 applies the significance test to  $F_5$  and  $F_6$ . Step 244 represents a tie between  $F_5$  and  $F_6$ , and allocates a split of the remaining balance of the industry ( $I_n - 9.0\%$ ) and forwarded to step 246. Step 236 captures a clearance of the significance test of step 234 and assigns  $F_5$  2.25% and forwards the process to step 238 for a significance test between  $F_6$  and  $F_7$ . If  $F_6$  clears the significance test of step 238, it is assigned the balance of the industry ( $I_n - 11.25\%$ ) and sent go step 246. Step 242 allocates the step 238 significance tie to  $F_6$  and  $F_7$  with a split of the remaining balance ( $I_n - 11.15\%$ ). Step 198 takes the process back to step 40.

Figure 9 illustrates an algorithmic example of the illustrative embodiment, with an algorithmic example of the industries of the embodiment found in figure 10. When the data processing system is run, the following results of the illustrative embodiment were found.

Figure 11 illustrates the simple process of assigning each company of the chosen universe. If the more detailed portfolio is chosen by the investment manager, the data processing system would assign in step 300 the individual company's relative percent to the entire universe. Step 302 would include all members of the defined universe, and a large portfolio would be created.

## HISTORICAL PERFORMANCE OF THE INVENTION (using the illustrative embodiment)

The following table compares the actual performance of the Standard and Poor's Barra Value Index(D ("S&P Barra Value") and the Russell 1000 Value Index® ('Russell 1000 Value'), with the hypothetical results of the illustrative embodiment of the invention (common shareholders equity) for various historical periods. Total returns of the Strategy Model are returns on a hypothetical portfolio whose results have been approved by the SEC that are included in a Prospectus for a mutual fund composed of stocks selected by the Strategy Model (common shareholders equity) and re-balanced monthly.

The S&P Barra Value and the Russell 1000 Value are indexes that have -no costs or expenses of operation, however, its total return amounts reflect reinvestment of dividends for purposes of general comparison to this invention.

### Comparative Historical Total Return Performance of this Invention

Please note that past results of this embodiment do not necessarily indicate future performance or earnings of the invention

Period	Industry Leaders Strategy	S&P Barra Value Index®	Russell 1000 Value Index®
1 year			
12/31/98-12/31/99	10.89%	12.69%	7.66%
3 years			
12/31/96-12/31/99	22.33%	18.87%	18.94%
5 years			
12/31/94-12/31/99	26.34%	22.93%	23.15%
10 years			
12/31/99-12/31/99	17.26%	15.36%	15/63%
13 Years			

12/31/86-12/31/99

16.94%

15.90%

15.87%

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00520" 21.42960

## CLAIMS

1  
2           1.     A method of allocating a portfolio investment among a population of securities  
3 held in an investment portfolio, each security of said population of securities is issued by a  
4 company of a plurality of companies, said each security having at least one corresponding  
5 data element, said method comprising the steps of:

6                   (a)     assigning said each security to a corresponding industry group of a  
7 plurality of industry groups;

8                   (b)     summing said one corresponding data element of each of said securities  
9 assigned to said corresponding industry group to provide an industry total for said  
10 corresponding industry group;

11                   (c)     summing said industry total of each of said plurality of industry groups  
12 to provide said portfolio investment; and

13                   (d)     distributing one investment portion of said portfolio investment to at  
14 least one or more of said plurality of industry groups.

15           2.     The method of claim 1, wherein there is further included the step of updating  
16 at least some of said population of securities on a periodic cycle.

17           3.     The method of claim 2, wherein said updating step updates all of said  
18 population of securities on a fixed cycle.

19           4.     The method of claim 1, wherein said updating step updates the securities of  
20 each of said plurality of industry groups on a periodic cycle.

21           5.     The method of claim 4, wherein each industry group is updated on a different  
22 periodic cycle.

23           6.     The method of claim 2, wherein said plurality of securities are subdivided into  
24 a plurality of editions.

1           7.     The method of claim 6, wherein each edition of said plurality is updated on a  
2 cycle that is staggered from the cycles of the other editions of said plurality.

3           8.     The method of claim 7, wherein each cycle is of the same length.

4           9.     The method of claim 1, wherein said one investment portion of said  
5 corresponding industry group is equal to a proportion of said industry total of said  
6 corresponding industry group to said portfolio investment.

7           10.    The method of claim 9, wherein said step of distributing distributes said one  
8 investment portion among a selected one or more of said securities of said corresponding  
9 industry group.

10          11.    The method of claim 10, further comprising the step of selecting at least one  
11 security of said securities assigned to said corresponding industry group that has the largest  
12 data element of said securities assigned to said corresponding industry group.

13          12.    The method of claim 11, further comprising a step of allocating a plurality of  
14 parts of said one investment proportion of said corresponding industry group to two or more  
15 of said securities of said corresponding industry group having the largest data elements.

16          13.    The method of claim 12, further comprising a step of ranking said securities of  
17 said corresponding industry group according to the magnitude of their data elements.

18          14.    The method of claim 9, wherein there is included a step of limiting said one  
19 investment portion to one security of said corresponding industry group to not exceed a set  
20 amount.

21          15.    The method of claim 14, wherein said set limit is set as a second proportion of  
22 said fund total.

23          16.    The method of claim 12, wherein there is included a step of limiting one part  
24 of said plurality of parts of said one investment portion to not exceed a set amount.

1 17. The method of claim 16, wherein said set amount is set as a second proportion  
2 of said fund total.

3 18. The method of claim 17, wherein said second proportion is 2.25%.

4 19. The method of claim 12, wherein there is included a step of comparing said  
5 one part to said set amount and, if less than or equal to said set amount, said one part is set  
6 equal to said set amount.

7 20. The method of claim 19, wherein there is further included a step of ranking at  
8 least two of said securities of said corresponding industry group according to the magnitude  
9 of their data elements to provide at least first and second ranked securities.

10 21. The method of claim 20, wherein there is further included a step of comparing  
11 said first ranked security with said second ranked security and, if said first ranked security is  
12 larger than said second ranked security by a certain amount, said allocating step allocates all  
13 of said one part to said first ranked security.

14 22. The method of claim 21, wherein if said first ranked security is not larger than  
15 said second ranked security by said certain amount, said allocating step allocates said one  
16 part equally among said first ranked security and said second ranked security.

17 23. The method of claim 16, wherein there is further included a step of setting at  
18 least first and second limits as different whole multiples of said set amount respectively.

19 24. The method of claim 23, wherein said second limit is greater than said first  
20 limit, and there is further included the step of comparing said investment portion to said first  
21 limit and, if greater, setting said first part equal to said set amount and allocating said first  
22 part to a first security of said corresponding industry group.

23 25. The method of claim 23, wherein if said investment portion is less than said  
24 first limit, setting said first part to less than said set amount and allocating said first part to a  
25 first security of said corresponding industry group.



26. The method of claim 24, wherein if said investment portion is greater than said first limit, comparing said investment portion to said second limit and, if less, setting a second part equal to said set amount and allocating said second part to a second security of said corresponding industry group.

27. The method of claim 26, wherein if said investment portion is greater than said second limit, setting a third part equal to said set amount and allocating said third part to a third security of said corresponding industry group.

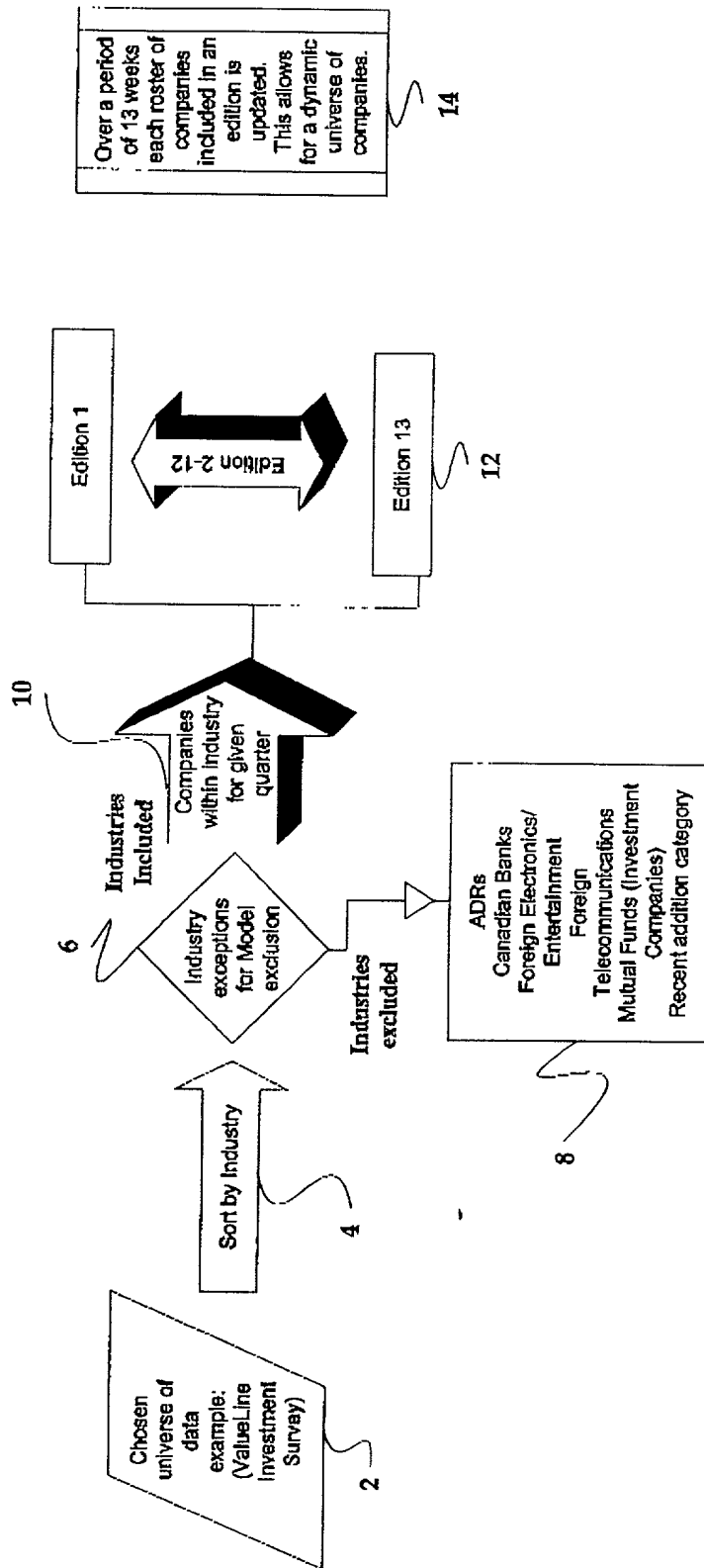
28. The method of claim 10, wherein said step of distributing distributes said one investment portion among all of said securities of said corresponding industry group.

29. The method of claim 28, wherein said one investment portion is allocated among all of said securities of said corresponding group proportionally to the magnitudes of each of said data elements of said securities of said corresponding industry group.

**ABSTRACT OF THE INVENTION**

A method is disclosed for allocating a portfolio investment among a population of securities held in an investment portfolio, wherein each security of the population of securities is issued by a company of a plurality of companies, and each security has at least one corresponding data element. The method includes the steps of assigning each security to a corresponding industry group, summing the industry total of each of the plurality of industry groups to provide the portfolio investment. One investment portion of the portfolio investment is distributed to at least one or more of the plurality of industry groups. The investment portion of the corresponding industry group is equal to a proportion of the industry total of the corresponding industry group to the portfolio investment. The investment portion may be distributed among a selected one or more of the securities of the corresponding industry group.

## Data Frame Phase (Universe Determination)



The Data Frame Phase determines the industries, companies, and time period to be included into the Model.

A different (of 13) edition is updated weekly by ValueLine and aggregated monthly by the model, so over a period of 3 months, all editions are updated.

Figure 1

# Data Intrusion Stage

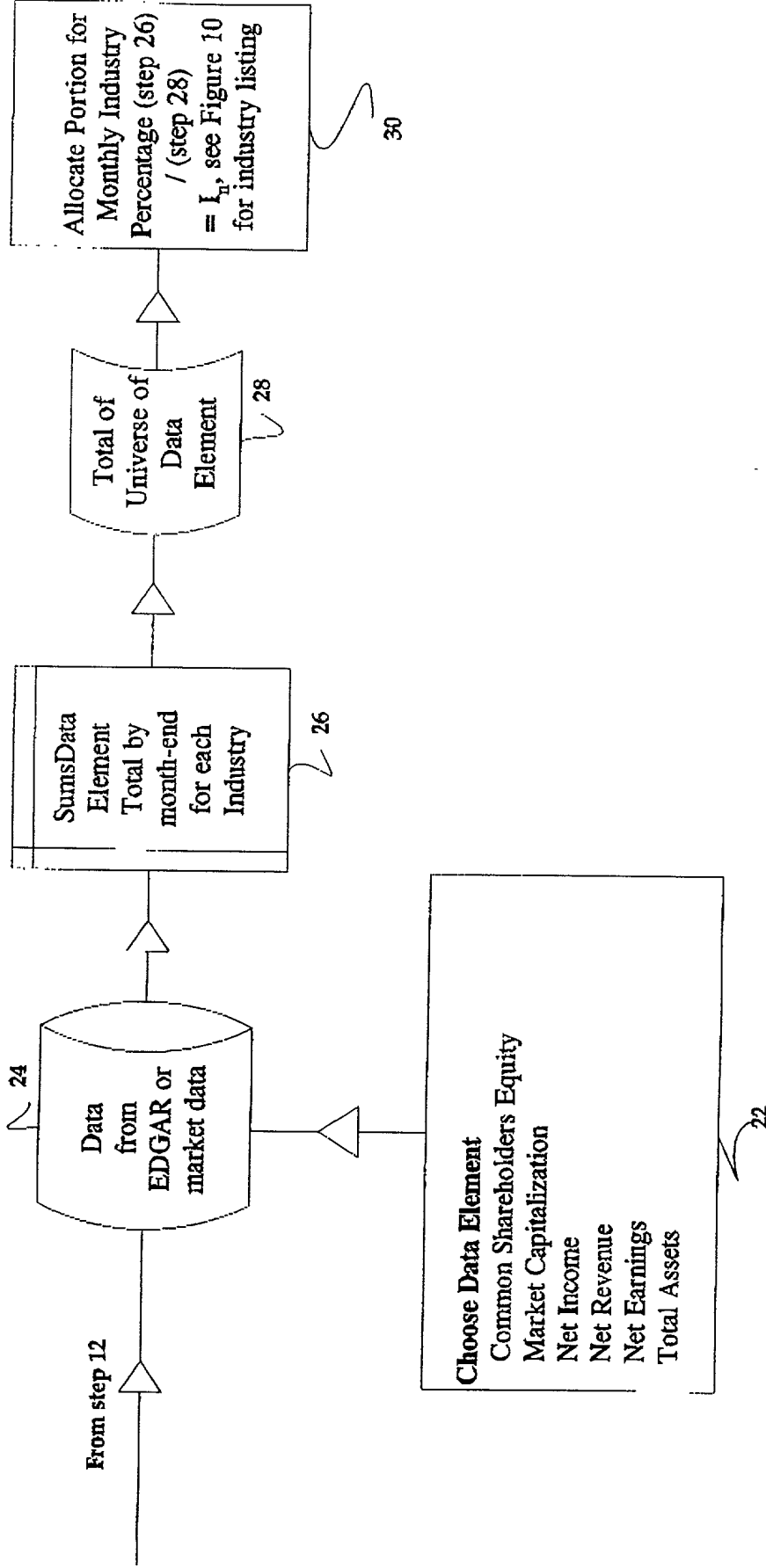


Figure 2



# Industry Representation Process for Chosen Individual Allocation Limit

Step 2

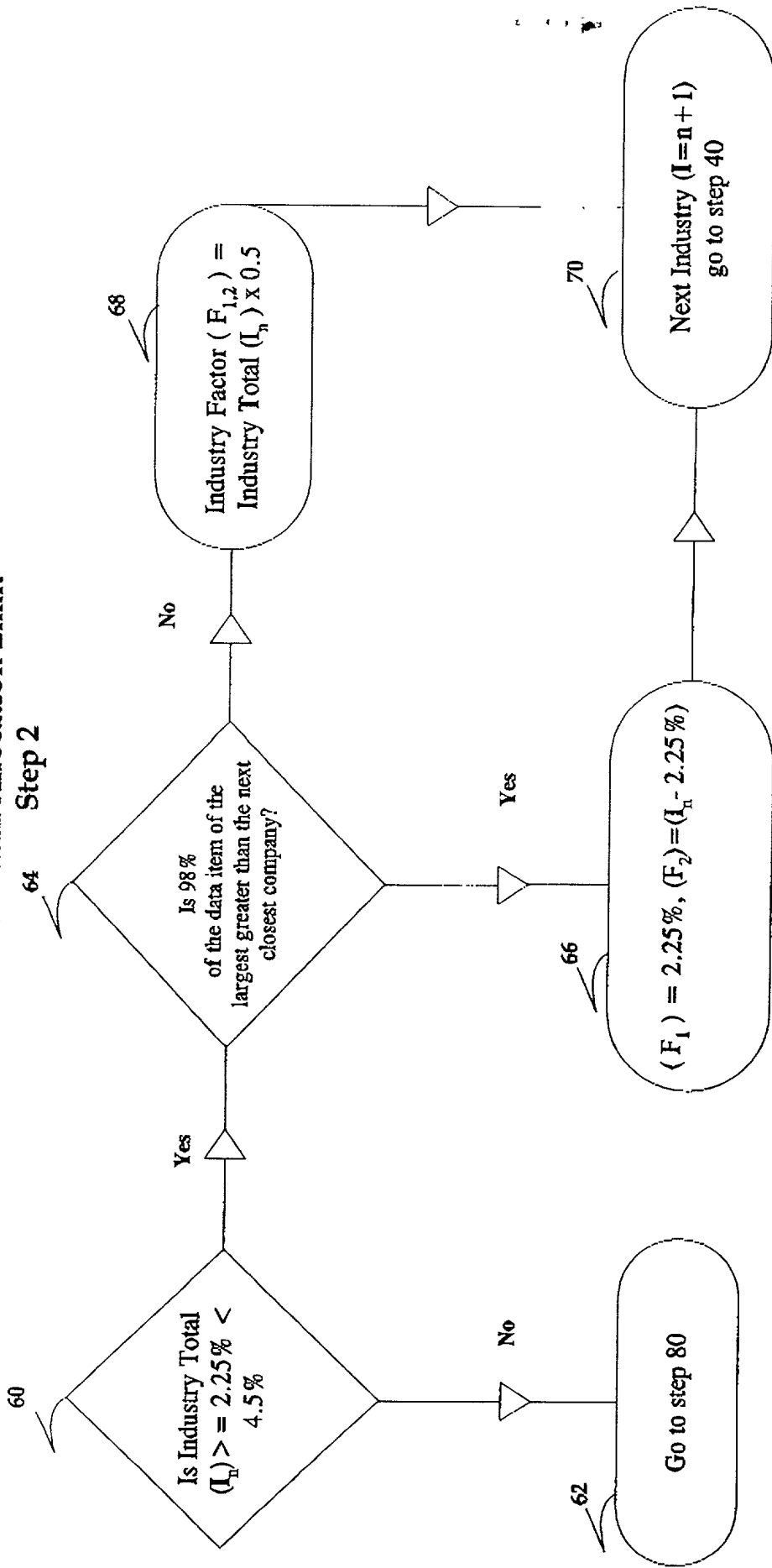


Figure 4

# Industry Representation Process for Chosen Individual Allocation Limit

## Step 3

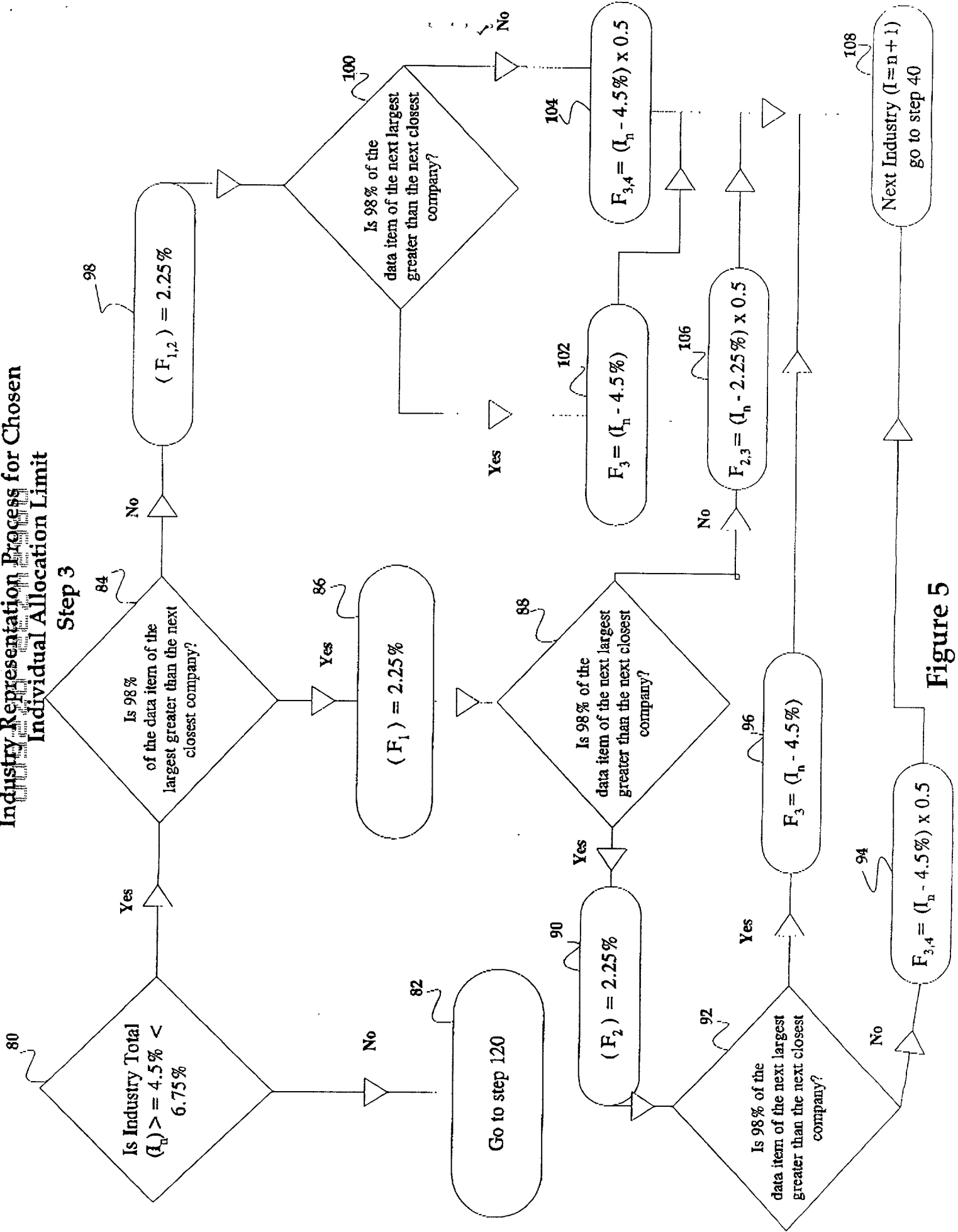


Figure 5

# Industry Representation Process for Chosen Individual Allocation Limit

## Step 4

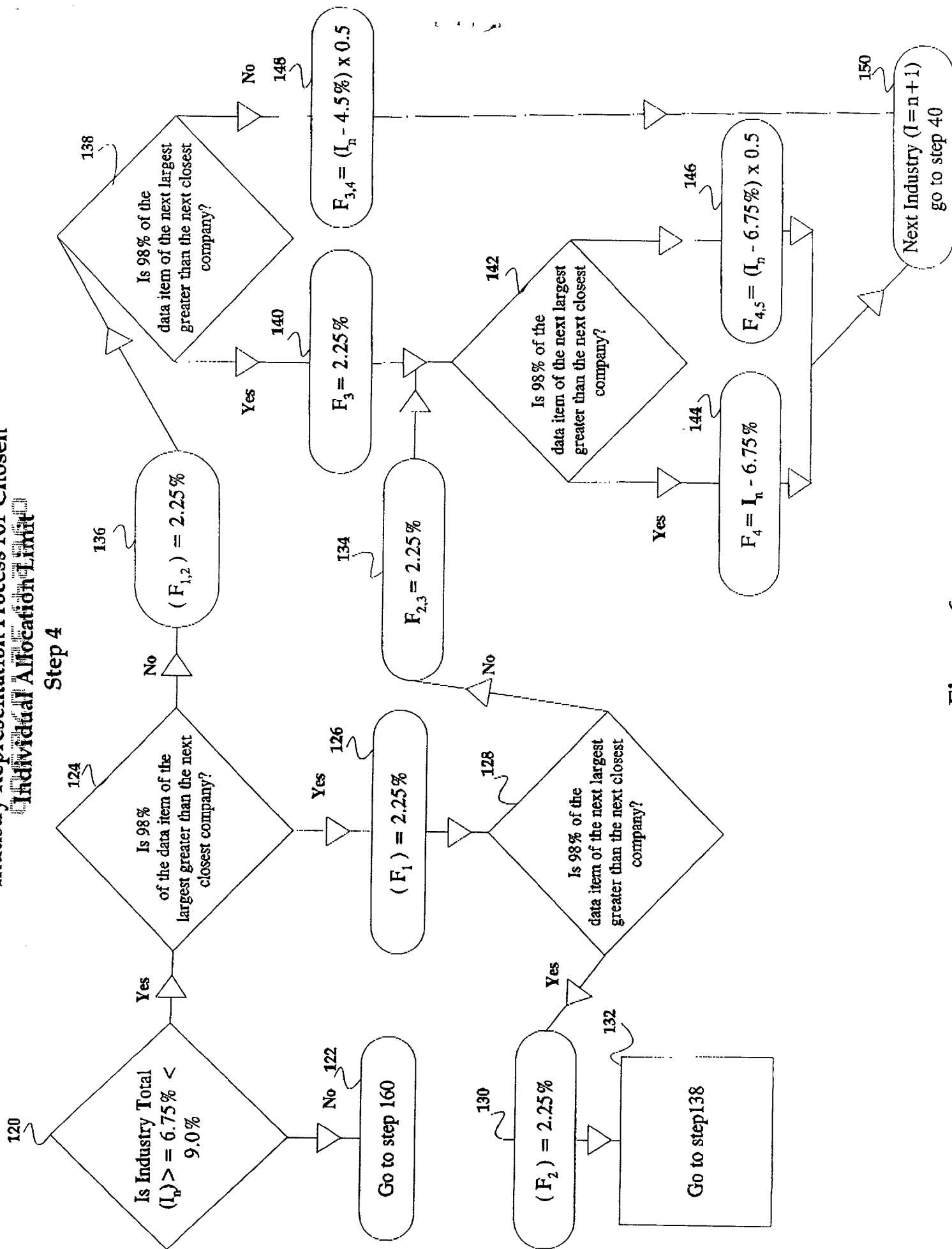


Figure 6



# Industry Representation Process for Chosen Individual Allocation Limit

## Step 5

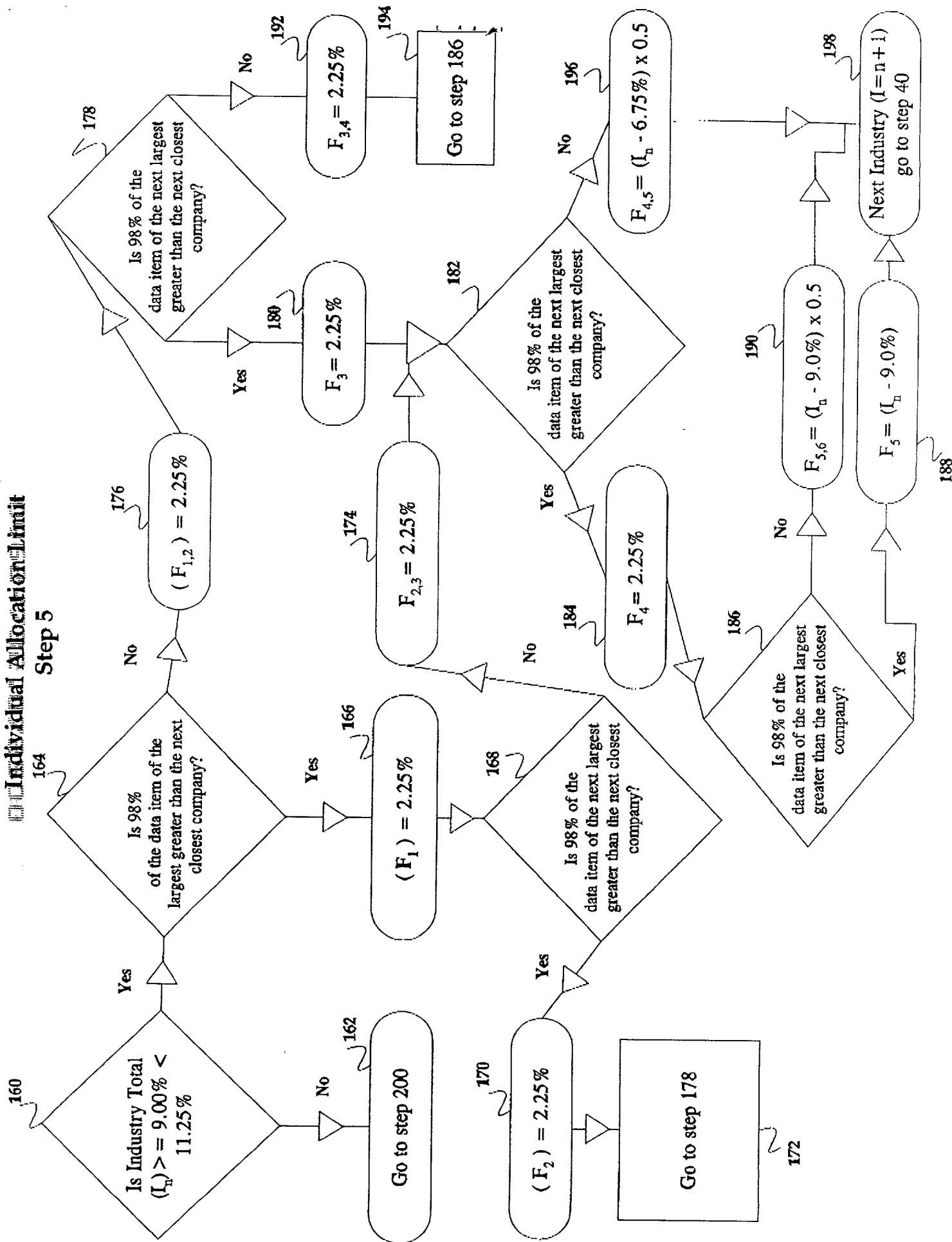


Figure 7

# Industry Representation Process for Chosen Individual Allocation Limit

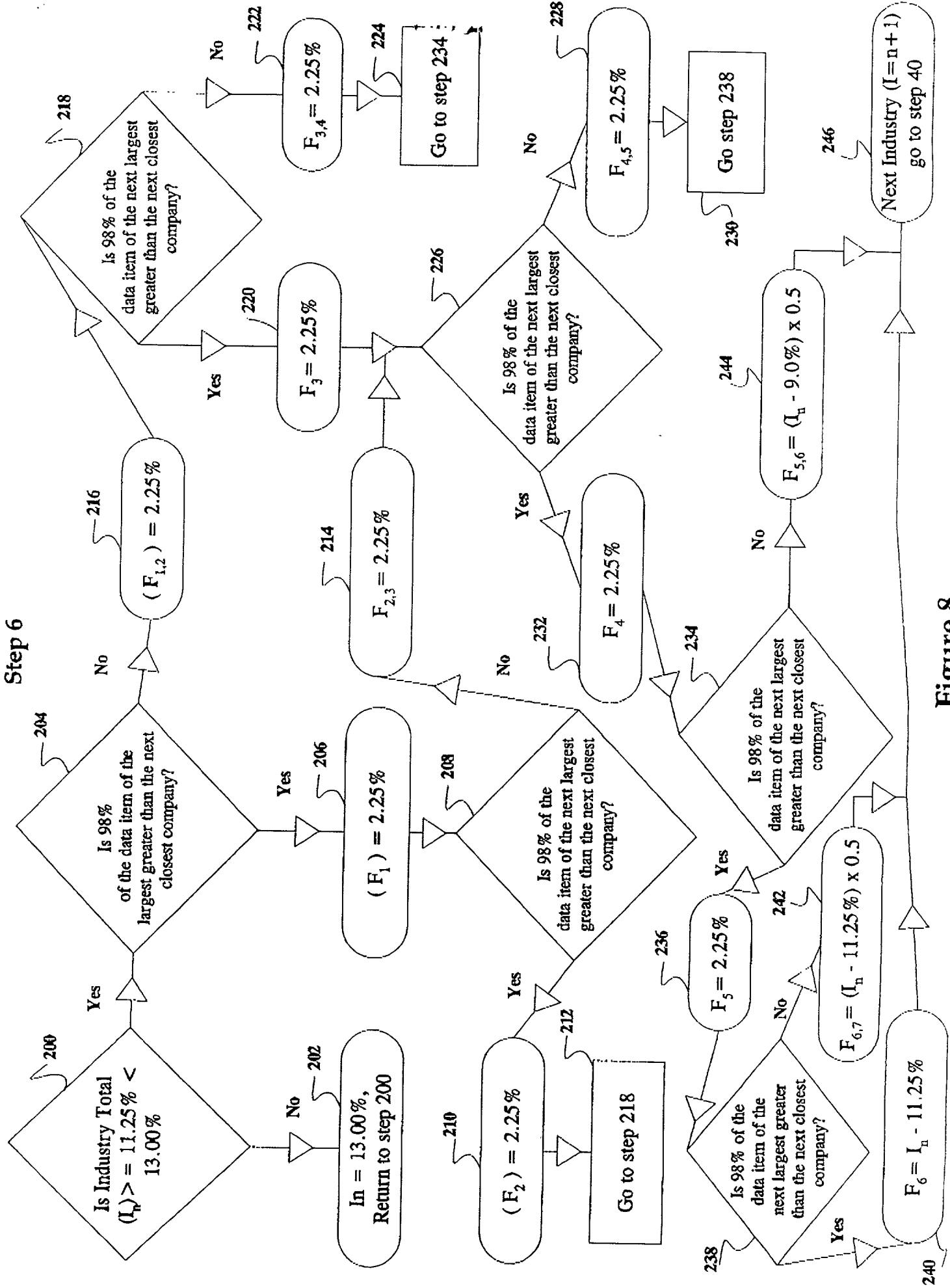


Figure 8

## Model Mechanics

### Variable Definitions:

F= Monthly investment factor (allocation)

Pb= Price at beginning of month

Pe= Price at end of month

I<sub>n</sub>= Industry(n)

C<sub>z</sub>= Company(z)

j= number of Industries

k = number of companies within Industry

InCz= Company z within Industry n

BMValue= Value of Strategy model at end of preceding month (value of 1000 12/31/86)

Value of individual investments  
at the beginning of the month

$$\sum_{n=1}^j \left[ \sum_{z=1}^k F(InCz) BMValue \right]$$

Value of Strategy Model  
at the end of the month

$$\sum_{n=1}^j \left[ \sum_{z=1}^k \left( F(InCz) BMValue / Pb(InCz) \right) Pe(InCz) \right]$$

note: For the majority of the industries, k equals 1. Most industries have only one representative. Please refer to the 12/31/99 industry list found in Figure 10.

Figure 9

**Illustrative Embodiment using  
Common Shareholders' Equity as Data Element  
Figure 10**

Industry #			Dec99
Company #	Industry	Company	Allocation
I1C1	Auto & Truck	Ford Motor Company	.015469
I2C1	Auto Parts Replacement	Tenneco Automotive Inc.	.001171
I2C2	Metal Fabricating	Genuine Parts Co.	.001171
I3C1	Tire & Rubber	Goodyear Tire & Rubber Co.	.001886
I4C1	Home Appliance	Whirlpool Corp.	.001170
I5C1	Precision Instrument	Eastman Kodak Co.	.003651
I6C1	Electric Utility East	Southern Co.	.022500
I6C2	Electric Utility East	Duke Energy Corp.	.004566
I7C1	Medical Supplies	Johnson & Johnson	.018336
I8C1	Air Transport	AMR Corp/Del	.009865
I9C1	Trucking & Transport Leasing	Hertz Corp.	.003152
I10C1	Maritime	Alexander & Baldwin Inc.	.000666
I11C1	Railroad	Burlington Northern Santa Fe Corp.	.012537
I12C1	Restaurant	McDonald's Corp.	.006068
I13C1	Industrial Services	Autonation Inc.	.006414
I14C1	Environmental	Waste Management Inc.	.002743
I15C1	Petroleum Integrated	Exxon Mobil Corp.	.022500
I15C2	Petroleum Integrated	Royal Dutch Petroleum Company	.022500
I15C3	Petroleum Integrated	Chevron Corporation	.010132
I16C1	Natural Gas Diversified	Enron Corp.	.010880
I17C1	Natural Gas Distribution	KeySpan Corporation	.004107
I18C1	Chemical Specialty	Rohm & Haas Co.	.007753
I19C1	Aerospace/Defense	Boeing Co.	.013102
I20C1	Metal Fabricating	Illinois Tool Works	.003356
I21C1	Steel General	Nucor Corp.	.002034
I22C1	Insurance - Property & Casualty	Berkshire Hathaway Inc.	.022500
I22C2	Insurance - Property & Casualty	Allstate Corp.	.020504
I23C1	Medical Services	Aetna Inc.	.016322
I24C1	Healthcare Information Systems	IMS Health Inc.	.000576
I25C1	Electric Utility Central	Texas Utilities Co.	.021736
I26C1	Telecommunications Service	AT&T Corp.	.022500
I26C2	Telecommunications Service	MCI Worldcom Inc.	.022500
I26C3	Telecommunications Service	Bell Atlantic Corp.	.022500
I26C4	Telecommunications Service	SBC Communications Inc.	.015489
I27C1	Telecommunications Equipment	Lucent Technologies Inc.	.012174
I28C1	Drugstore	Walgreen Co.	.003262
I29C1	Auto Parts OEM	Delphi Automotive Systems	.003254
I29C2	Auto Parts OEM	Magna International Inc.	.003254
I30C1	Toiletries/Cosmetics	Gillette Company	.001933
I31C1	Cable TV	Comcast Corp.	.001303
I32C1	Building Materials	Masco Corp.	.002733
I33C1	Homebuilding	Centex Corp.	.002663
I34C1	Retail Building Supply	Home Depot Inc.	.005868
I35C1	Cement & Aggregates	Lafarge Corp.	.001908
I36C1	Furniture/Home Furnishings	Leggett & Platt Inc.	.002013
I37C1	Paper & Forest Products	International Paper Co.	.015229
I38C1	Packaging & Container	Crown Cork & Seal Co. Inc.	.003779
I39C1	Household Products	Procter & Gamble Co.	.007907
I40C1	Electrical Equipment	General Electric Company	.021617
I41C1	Electronics	JDS Uniphase Corp.	.007649
I42C1	Semiconductor	Intel Corp.	.022500
I42C2	Semiconductor	Motorola Inc.	.000938
I43C1	Semiconductor Capital Equipment	Applied Materials Inc.	.001977
I44C1	Computer and Peripherals	International Business Machines Corp.	.022500

**Illustrative Embodiment using  
Common Shareholders' Equity as Data Element  
Figure 10**

Industry #			Dec99
Company #	Industry	Company	Allocation
I44C2	Computer and Peripherals	Hewlett-Packard Co	.012071
I45C1	Office Equipment & Supply	Xerox Corp.	.006040
I50C1	Thrift	Fannie Mae	.016325
I51C1	REIT	Equity Residential Props TR	.006086
I52C1	Insurance - Life	AXA Financial Inc.	.010915
I53C1	Gold/Silver Mining	Barrick Gold Corp.	.002718
I54C1	Metals & Mining	Alcoa Inc.	.006981
I55C1	Chemical - Basic	Du Pont (E.I.) de Nemours	.007654
I56C1	Drug	Merck & Co., Inc.	.022500
I56C2	Drug	Pfizer Inc.	.001399
I56C3	Drug	Bristol-Myers Squibb Co.	.001399
I57C1	Machinery	Caterpillar Inc.	.011627
I58C1	Diversified	Tyco International Ltd.	.018692
I59C1	Steel (Integrated)	USX-U.S. Steel Group Inc.	.001960
I60C1	Water Utility	American Water Works Inc.	.000990
I61C1	Securities Brokerage	Morgan Stanley Dean Witter & Compa	.018694
I62C1	Food Processing	Unilever N.V.	.016838
I63C1	Grocery Store	Albertson's Inc.	.006290
I64C1	Food Wholesalers	Supervalu Inc.	.001594
I65C1	Beverage (Alcoholic)	Seagram Co. Ltd.	.006542
I66C1	Beverage (Soft Drinks)	Coca-Cola Co.	.007334
I67C1	Manufactured Housing / RV	Clayton Homes Inc.	.001019
I68C1	Tobacco	Philip Morris Companies Inc.	.007888
I69C1	Educational Services	Sylvan Learning Systems Inc.	.000461
I70C1	Apparel	VF Corporation	.003100
I71C1	Textile	Springs Industries Inc.	.001073
I72C1	Retail Store	Wal-Mart Stores Inc.	.022500
I72C2	Retail Store	Pennney (J.C.) Co.	.002143
I73C1	Shoe	Nike Inc.	.001704
I74C1	Retail Special Lines	Toys R US Inc.	.010486
I75C1	Electric Utility West	PG&E Corp.	.010671
I76C1	Recreation	Carnival Corp.	.006109
I77C1	Entertainment	Walt Disney (Hldgs) Co	.022500
I77C2	Entertainment	Viacom Inc.	.001375
I78C1	Hotel/Gaming	Park Place Entertainment Corp.	.004802
I79C1	Publishing	McGraw-Hill Companies Inc.	.002335
I80C1	Newspaper	Gannett Co. Inc.	.005492
I81C1	Advertising	Interpublic Group Cos. Inc.	.001345
I82C1	Petroleum Producing	Burlington Resources Inc.	.003315
I83C1	Oilfield Services	Schlumberger Ltd.	.011022
I84C1	Chemical Diversified	Minnesota Mining & Mfg Co	.007801
I85C1	Bank	Bank of America Corp.	.022500
I85C2	Bank	Wells Fargo Company	.022500
I85C3	Bank	Chase Manhattan Corp.	.022500
I85C4	Bank	Bank One Corp.	.016981
I86C1	Financial Services Diversified	Citigroup Inc.	.022500
I86C2	Financial Services Diversified	American International Group	.022500
I86C3	Financial Services Diversified	Loews Corp.	.005281
I86C4	Financial Services Diversified	American Express Company	.005281
I87C1	Computer Software & Services	Microsoft Corp.	.022500
I87C2	Computer Software & Services	Electronic Data Systems	.002377
I88C1	Internet	At Home Corp.	.006470

# Individual Representation Within Industry for All Companies in the Selected Universe

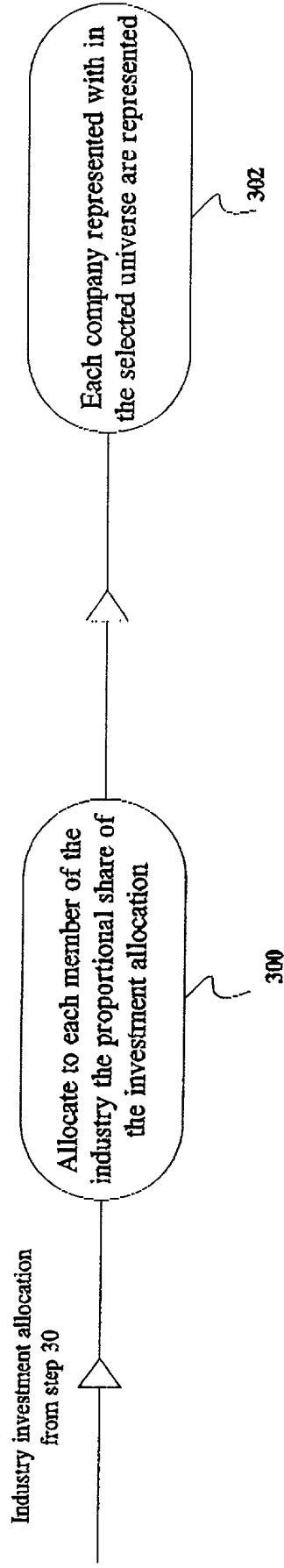


Figure 11

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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION (37 CFR 1.63)</b>	<b>Attorney Docket Number</b>	23334.01
	<b>First Named Inventor</b>	Gerard P. SULLIVAN
	<b>COMPLETE IF KNOWN</b>	
	<b>Application Number</b>	/ to be assigned
	<b>Filing Date</b>	to be assigned
	<b>Group Art Unit</b>	to be assigned
<input type="checkbox"/> Declaration Submitted with Initial Filing	<b>OR</b>	<input type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)
	<b>Examiner Name</b>	to be assigned

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**APPARATUS AND METHOD FOR CREATING AND MANAGING A FINANCIAL INSTRUMENT**

the specification of which

(Title of the Invention)

☒ is attached hereto  
OR

☐ was filed on (MM/DD/YYYY) [ ] as United States Application Number or PCT International

Application Number [ ] and was amended on (MM/DD/YYYY) [ ] (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT International application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
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06/181,718	

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[Page 1 of 2]

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R. Lewis Gable	22,479		

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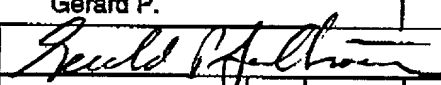
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Name of Sole or First Inventor:

☐ A petition has been filed for this unsigned inventor

Given Name (first and middle if any)		Family Name or Surname			
Gerard P.		Sullivan			
Inventor's Signature				Date	7/25/00
Residence: City	Summit	State	NJ	Country	US
Post Office Address	175 Oak Ridge Avenue				
Post Office Address					
City	Summit	State	NJ	ZIP	07901
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